

CLAIMS

1. A computer-implemented method of representing a stroke in an image, the stroke being defined by a path extending across one or more positions in the image and one or more stroke parameters, each stroke parameter representing an appearance attribute of the stroke, the method comprising:

5 associating values for the one or more stroke parameters with time values in a time dimension of the stroke, the parameter values being associated with the time values independent of position along the stroke path; and
representing the stroke according to the parameter values and their associated time values.

10 2. The method of claim 1, wherein:

the parameter values and positions are independently associated with time values in the time dimension of the stroke.

3. The method of claim 1, wherein, the association of parameter values with time values is defined as a function.

15 4. The method of claim 3, wherein:

the function is piecewise linear.

5. The method of claim 3, wherein:

a different function is used for each parameter.

6. The method of claim 3, wherein:

20 the function is implemented as a table.

7. The method of claim 1, further comprising:

changing the time value associated with a parameter value; and

representing the stroke based in part on the parameter value and the associated changed time value.

8. The method of claim 7, wherein representing the stroke according to the parameter values and their associated time values includes representing a first instance of the stroke and representing the stroke based in part on the parameter and the associated changed time value includes presenting a second instance of the stroke, the method further comprising:

5 interpolating between the first and second instances to generate one or more additional instances of the stroke.

9. The method of claim 8, wherein:

the first instance and the second instance each correspond to a keyframe of an animation, the animation having an animation time frame, each keyframe corresponding to a time point
10 in animation time;

the time value in the time dimension of the stroke is changed as a function of animation time.

10. The method of claim 9, wherein, in the first instance or the second instance of the stroke, not every parameter has a defined value.

15 11. A computer program product, tangibly stored on a computer-readable medium, for representing a stroke in an image, the stroke being defined by a path extending across one or more positions in the image and one or more stroke parameters, each stroke parameter representing an appearance attribute of the stroke, the product comprising instructions operable to cause a programmable processor to perform operations comprising:

20 associating values for the one or more stroke parameters with time values in a time dimension of the stroke, the parameter values being associated with the time values independent of position along the stroke path; and

representing the stroke according to the parameter values and their associated time values.

25 12. The product of claim 11, wherein:

the parameter values and positions are independently associated with time values in the time dimension of the stroke.

13. The product of claim 11, wherein, the association of parameter values with time values is defined as a function.

14. The product of claim 13, wherein:
the function is piecewise linear.

5 15. The product of claim 13, wherein:
a different function is used for each parameter.

16. The product of claim 13, wherein:
the function is implemented as a table.

17. The product of claim 11, wherein the operations further comprise:
10 changing the time value associated with a parameter value; and
representing the stroke based in part on the parameter value and the associated changed time value.

18. The product of claim 17, wherein representing the stroke according to the parameter values and their associated time values includes representing a first instance of the stroke and
15 representing the stroke based in part on the parameter and the associated changed time value includes presenting a second instance of the stroke, the operations further comprising:
interpolating between the first and second instances to generate one or more additional instances of the stroke.

19. The product of claim 18, wherein:
20 the first instance and the second instance each correspond to a keyframe of an animation, the animation having an animation time frame, each keyframe corresponding to a time point in animation time;
the time value in the time dimension of the stroke is changed as a function of animation time.

25 20. The product of claim 19, wherein, in the first instance or the second instance of the stroke, not every parameter has a defined value.